



**UPSC  
Mentorship**  
A Unit of Mentorship India

# DAILY CURRENT AFFAIRS

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## SOURCES



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## Polity

# Supreme Court to pronounce verdict on constitutionality of Section 6A of the Citizenship Act

## Why in News?

The petitioners had questioned in court why Assam alone, among the border States, had been singled out to implement Section 6A

### Context:

The Supreme Court of India is set to pronounce its verdict on the constitutionality of Section 6A of the Citizenship Act, 1955. Section 6A, introduced in the aftermath of the Assam Accord, provides special provisions for immigrants who entered Assam from Bangladesh before certain cutoff dates.

This judgment will have significant implications for Assam, as well as broader issues of migration, citizenship, and demographic change.

### Details of Section 6A of the Citizenship Act

Provision	Details
Cutoff Dates	Immigrants who entered Assam before January 1, 1966, granted full citizenship rights. Those entering between January 1, 1966, and March 25, 1971, could not vote for 10 years but had all other rights.
Basis for Inclusion	Assam Accord (1985), signed by the Rajiv Gandhi government, aimed at addressing local grievances related to illegal migration from Bangladesh.
Petitioner's Argument	Assam was unfairly singled out for implementation, leading to a rise in cross-border infiltration and demographic shifts.
Government's Response	The government acknowledged ongoing challenges in detecting, deporting, and preventing illegal immigration. Blame was also placed on West Bengal's slower land acquisition policies for hindering border fencing.

### Legal and Political Implications

- The case examines whether Section 6A of the Citizenship Act disproportionately affects Assam's demographic makeup, cultural identity, and security compared to other northeastern states.
- The court's decision may impact similar immigration issues in other border states and fuel ongoing debates around the National Register of Citizens (NRC) and the Citizenship Amendment Act (CAA).

### Geopolitical Concerns

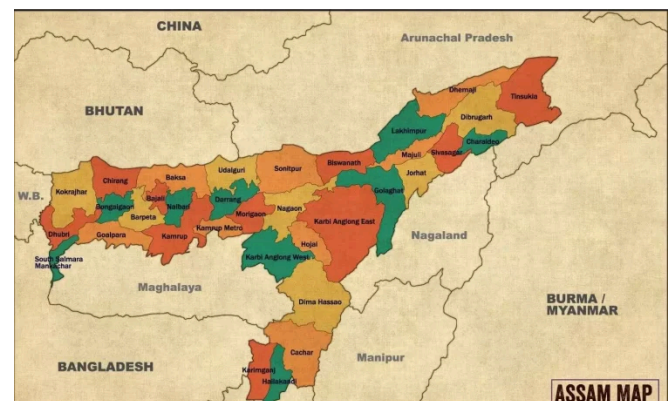
- **Illegal Migration from Bangladesh:** Assam shares a 263 km porous border with Bangladesh, making it a key entry point for migrants. Other states like

West Bengal, Meghalaya, and Tripura also face similar challenges.

- **Border Fencing Issues:** The government has struggled to fully secure the border due to natural and logistical challenges, with West Bengal's land acquisition policies cited as a major hurdle.

### Supreme Court's Focus

- The court made it clear that its ruling would be restricted to Section 6A, excluding the NRC.
- It sought evidence on how benefits given to migrants from Bangladesh between 1966 and 1971 impacted Assamese identity and led to demographic changes.



### Conclusion

The Supreme Court's verdict on Section 6A will address longstanding questions regarding the Assam Accord and its implications for citizenship and migration policies. The judgement will also set a precedent for how the country deals with immigration-related issues in the future.

**Question:** Examine the implications of Section 6A of the Citizenship Act on Assam's demographic profile and cultural identity.

**Source:** [The Hindu](#)



## Reimagining access to justice

### Why in News?

In a nation where 'justice for all' has long been a constitutional dream, Third-Party Litigation Funding might help turn it into reality

### Introduction

- In India, where "justice for all" is enshrined as a constitutional dream, Third-Party Litigation Funding (TPLF) is emerging as a potential game-changer.
- By allowing external investors to fund legal cases in exchange for a share of the winnings, TPLF could democratize access to justice, particularly for underprivileged groups unable to afford the high costs of litigation.

### Key Concepts

- **Third-Party Litigation Funding (TPLF):** A financing arrangement where a third-party investor provides funds for litigation in exchange for a percentage of the case's eventual settlement or award.
- **Landmark Judgment:** The Supreme Court of India's verdict in *Bar Council of India v. A.K. Balaji* approved TPLF, barring lawyers from funding such cases, and referred to it as a "potential equaliser in the courtroom."

### Benefits of TPLF

1. **Access to Justice for All:** TPLF provides a lifeline for individuals and groups lacking financial resources, enabling them to pursue legal remedies. It could help:
  - Small shopkeepers fighting large corporations.

### Regulatory Framework

Issues	Proposed Solution
Licensing of Funders	Licensing funders as financial service providers to ensure credibility.
Regulation & Monitoring	Establishing an oversight body to monitor funding activities.
Disclosure & Transparency	Mandatory disclosure of financing terms and liability for adverse costs.
Funder's Control & Client Rights	Limiting funders' influence over litigation strategy and protecting client autonomy.
Profit Capping	Capping funders' profit to avoid exploitation.

### Conclusion

TPLF can improve justice access in India, needing regulations to ensure balance and judicial integrity.

- Tribal communities challenging polluting industries.
  - Workers taking legal action against unfair treatment.
2. **Revitalising Public Interest Litigation (PIL):** TPLF could reinvigorate PILs, especially in areas like consumer rights, environmental protection, and social justice.
  3. **Specialised Fields:** TPLF may prove crucial in cases involving complex fields like medical malpractice and intellectual property rights (IPR), where expert testimonies are expensive but vital.

### Concerns and Challenges

- **Cherry-picking Profitable Cases:** Funders might prefer cases with higher monetary returns, potentially sidelining socially significant yet less lucrative cases.
- **Funders' Influence on Case Strategy:** The level of control that funders exert over litigation strategies may lead to ethical dilemmas, necessitating regulation to safeguard litigants' autonomy.
- **Lack of Comprehensive National Framework:** States like Maharashtra and Gujarat have recognized TPLF, but there is no nationwide regulation to ensure ethical and financial standards.

**Question:** Examine the implications of Third-Party Litigation Funding (TPLF) on the Public Interest Litigation (PIL) system in India. How can TPLF strengthen or weaken the PIL ecosystem?

**Source:** [The Hindu](#)



## Science

### Nobel Prize for microRNA find underscores RNA's primacy in biology

#### Why in News?

When Victor Ambros and Gary Ruvkun won the Nobel Prize last week, 581 clinical trials involving miRNA had been registered in the U.S. alone

#### Introduction

The Nobel Prize in Physiology or Medicine 2024 was pioneering discovery of microRNA (miRNA) and its critical role in gene regulation.

This discovery has far-reaching implications for human health, particularly in cancer and genetic diseases, underscoring RNA's increasing relevance in biology.

Despite early setbacks in clinical applications, the discovery of miRNA has marked a paradigm shift in molecular biology.

#### Important Concept

Term	Definition
microRNA (miRNA)	A small RNA molecule (~22 bases long) that regulates gene expression by inhibiting the translation of messenger RNA (mRNA) into proteins.
Messenger RNA (mRNA)	RNA that carries genetic information from DNA to the ribosome, where it directs protein synthesis.
Gene Regulation	The process of controlling which genes in a cell's DNA are expressed (used to make a functional product like a protein).
Transcription	The process of copying a segment of DNA into mRNA, which then guides protein synthesis.
Post-Transcriptional Gene Regulation	The control of gene expression at the mRNA level after it has been transcribed from DNA.

#### Mechanism of microRNA Action

- Gene Expression Control:** miRNA binds to specific mRNA sequences, preventing the mRNA from being translated into protein. This regulation ensures proteins are produced only when needed and prevents overproduction, which can harm cells.
- Target Specificity:** miRNA is highly specific to the mRNA it regulates, binding through complementary base pairing. Once bound, miRNA either blocks the mRNA from being translated or marks it for destruction.

#### Applications and Challenges:

##### 1. Clinical Potential:

- miRNAs are promising targets for therapies, especially in conditions like cancer where protein production goes awry.
- Challenges:** Early clinical trials failed due to issues with delivering miRNA to specific cells, leading to adverse immune responses.
- Despite this, advancements in delivery technologies have reignited interest, with 581 clinical trials registered in the U.S. by 2024.

##### 2. Significance in Disease:

- miRNAs are critical in regulating genes involved in cancer, cardiovascular diseases, and responses to stress.
- They may serve as biomarkers for disease diagnosis or as therapeutic targets.

**Question:** Discuss the significance of the discovery of microRNA in the context of gene regulation. How could this finding impact the future of medicine, particularly in treating diseases like cancer?

Source: [The Hindu](#)



## Inside the underground lab in China tasked with solving a physics mystery

### Why in News?

China's JUNO will soon start gathering data on neutrinos, a product of nuclear reactions, to help solve one of the biggest mysteries in particle physics

### Overview

China's **Jiangmen Underground Neutrino Observatory (JUNO)** is a key project that will explore the mysteries surrounding neutrinos—subatomic particles that pass through matter effortlessly. Understanding the mass hierarchy of neutrinos is critical for unlocking secrets of the early universe. JUNO's development is in competition with other neutrino observatories, including the **Deep Underground Neutrino Experiment (DUNE)** in the United States.

Feature	JUNO (China)	DUNE (USA)
Location	Kaiping, Guangdong, China	Fermilab, U.S.
Operational Timeline	Expected by late 2025	Expected by 2030
Cost	\$300 million	\$3 billion+
Purpose	Study of neutrinos, nuclear reactions, mass hierarchy	Similar objectives; delayed due to funding issues
Collaborators	China, France, Germany, Italy, Taiwan, Russia, U.S. (limited)	U.S. institutions
Key Advantage	Real-time solar processes, mantle convection study	Potential to study supernovae

### What are Neutrinos?

- **Neutrinos** are subatomic particles produced by nuclear reactions.
- **Types of Neutrinos:** Electron, Muon, Tau.
- Neutrinos can oscillate (transform) between types, a key mystery in particle physics.

### Importance of JUNO

- **Mass Hierarchy Determination:** JUNO aims to solve the mystery of which neutrino types are heaviest and lightest.
- **Solar and Geological Insights:** JUNO can track neutrinos from solar reactions and Earth's radioactive decay, offering new insights into solar processes and mantle convection.

### Data Integrity:

- JUNO will record data on neutrinos via a massive 600-metric ton spherical detector.
- This data will be shared with collaborating nations to ensure transparency and accuracy.

**Question:** How do projects like JUNO contribute to our understanding of the early universe? Examine the scientific and geopolitical challenges involved

**Source:** [The Hindu](#)



## Economy

### What does the Global Hunger Index 2024 state about India? | Explained

#### Why in News?

Why has the Ministry of Women and Child Development raised concerns over the data collection method?

#### Overview

The **Global Hunger Index (GHI) 2024** reveals a serious hunger situation in India, ranking it 105th among 127 countries with a score of 27.3. The GHI uses four primary indicators to assess hunger: undernourishment, child stunting, child wasting, and child mortality. The Ministry of Women and Child Development raised concerns regarding the data collection methodology, emphasizing the role of the Poshan Tracker.

#### GHI 2024 on India

Indicator	Definition	Value for India in 2024
Undernourishment	Population with insufficient caloric intake	13.7%
Child Stunting	Children under five with low height for their age (chronic undernutrition)	35.5%
Child Wasting	Children under five with low weight for their height (acute undernutrition)	18.7%
Child Mortality	Children dying before their fifth birthday	2.9%

India's child wasting rate remains the highest globally, underscoring the severity of acute malnutrition in the country.

The report stresses that despite India's political commitment to improving food security through programs like National Food Security Act, Poshan Abhiyan, and PM Garib Kalyan Yojna, gaps persist.

#### Solutions Proposed by the Report

- Enhanced Access to Social Safety Nets**
  - Expand reach of Public Distribution System (PDS), Integrated Child Development Services (ICDS), and PM Garib Kalyan Yojna (PMGKAY).
  - Direct cash transfers and nutritional support programs.
- Investment in Agriculture**
  - Focus on promoting nutritious crops like millets and adopting a diversified, sustainable food production approach.
- Mother and Child Health**
  - Improve water, sanitation, and hygiene (WASH), maternal healthcare, and prenatal nutrition.

- Addressing Gender and Climate Change:**
  - Recognize the links between food security, gender inequality, and climate change for holistic development.

#### Additional Facts

- National Food Security Act (NFSA):** A key policy that aims to provide subsidized food grains to two-thirds of India's population. However, its implementation has faced challenges, especially in addressing nutritional diversity.
- Poshan Abhiyan:** India's flagship program to improve nutritional outcomes for children, pregnant women, and lactating mothers, launched in 2018.

**Question:** To what extent do economic growth and social inequalities contribute to the persistence of hunger in India? Examine in light of the Global Hunger Index 2024.

**Source:** [The Hindu](#)



## Centre increases MSP for rabi crops for 2025-26, wheat sees 6% hike

### Why in News?

In the current Rabi Marketing Season (2024-25), the government procured 26.6 million tonnes of wheat, benefitting 22 lakh farmers.

### Introduction

The Union Government has announced the Minimum Support Prices (MSP) for six key Rabi crops for the 2025-26 marketing season. Wheat, being the country's second-largest crop in terms of area, witnessed a 6.59% increase in MSP, reflecting the government's efforts to ensure fair prices for farmers.

Crop	Percentage Increase
Wheat	6.59 %
Barley	7.03 %
Gram (Chickpea)	3.88 %
Lentil (Masur)	4.28 %
Rapeseed & Mustard	5.27 %
Safflower	2.41 %

### Importance of MSP Hike for Rabi Crops

- **Wheat:** India's second-largest crop after paddy. With 318.33 lakh hectares under cultivation in 2023-24, the estimated production is 113.92 million tonnes.
- **Barley:** Key crop in Uttar Pradesh, Rajasthan, Madhya Pradesh, with a 7.03% MSP increase.
- **Gram (Chickpea):** Largest pulse crop, grown across 95.87 lakh hectares in 2023-24 with production at 11.03 million tonnes. Top-producing states include Maharashtra, Madhya Pradesh, and Rajasthan.
- **Lentil (Masur):** Increasing focus due to India's import dependency for pulses, with major imports from Australia, Canada, Russia, etc.
- **Rapeseed & Mustard:** Second-largest oilseed crop after soybean, with a notable MSP hike of 5.27%.

### Factors Behind MSP Hikes

- **Government Priorities:**
  - As per the Agriculture Ministry, ensuring fair prices to farmers remains the top priority.
  - The MSP hike is seen as part of the government's strategy to ensure rural welfare and boost agricultural production.
- **Wheat Stock Levels:** As of October 2024, the wheat stock in the central pool stood at 23.78 million tonnes, ensuring ample reserves for food security under the National Food Security Act, 2013.

### Minimum Support Prices (MSP)

MSP is the pre-announced price at which the government purchases crops from farmers to protect them from market price fluctuations. It is announced for 23 crops before the sowing season.

### Objectives

- Ensure remunerative prices to farmers.
- Protect against price fluctuations.
- Encourage production of specific crops.
- Achieve food security by stabilizing crop production.

### Crops Covered

- **Kharif:** Rice, maize, cotton, etc.
- **Rabi:** Wheat, barley, gram, etc.
- **Commercial:** Sugarcane, cotton, jute.

### Factors for MSP Determination

- Cost of production.
- Demand-supply dynamics.
- Inter-crop price parity.
- Impact on consumers.

### Challenges

- **Regional Disparities:** Benefiting mainly Punjab, Haryana.
- **Awareness:** Many farmers unaware of MSP.
- **Procurement Limitations:** Focused on a few crops, causing overproduction.
- **Market Distortion:** Can lead to overproduction and wastage.

**Question:** Examine the role of Minimum Support Prices (MSP) in ensuring food security and economic stability for Indian farmers. Discuss its implications for India's agricultural policy.

**Source:** [The Indian Express](#)





## Environment

### Climate change impact harsher on poorer farmers in India: FAO report

#### Why in News?

FAO recommends enhanced social security net for all, Niti Aayog member says India doing its best to deal with climate change.

#### Overview

The Food and Agriculture Organization (FAO) recently released a report, "The Unjust Climate: Measuring the Impacts of Climate Change on Rural Poor, Women, and Youth", highlighting the disproportionate effects of climate change on poorer farmers, particularly in India.

This analysis sheds light on how climate-induced events such as heat stress and floods intensify poverty and inequality in rural farming communities.

#### Impacts

##### Income Losses Due to Climate Events

- **Heat Stress:** Poor households globally lose an average of 5% of their total income annually due to heat stress.
- **Floods:** They face a 4.4% reduction in income due to floods.
- **India-Specific Impact:** Climate change reduces the incomes of poor households more than wealthier ones, exacerbating existing economic disparities.

##### Agricultural Impact

- According to ICAR, climate change could reduce food grain production in India by up to 47% by 2080.
- In times of drought, poor rural households invest more time in agriculture due to reduced off-farm employment, further decreasing their income compared to unaffected households.

##### Structural Inequalities

1. The FAO report emphasized that poor households' vulnerability to climate stress is rooted in structural inequalities, which limit their capacity to adapt.
2. **Policy Recommendations:**
  - Expanding the social security net.
  - Enhancing off-farm employment opportunities and workforce diversification.
  - Addressing gender disparities through gender-transformative methodologies.

#### Recommendations for Climate-Smart Agriculture

- **Social Protection:** Scaling up anticipatory social protection programs to provide support before extreme weather events can help mitigate the negative effects on poor households.
- **Livelihood Support:** Reducing reliance on adverse coping strategies by offering support before extreme events can prevent deeper poverty.
- **Workforce Diversification:** Mentorship programs and initiatives aimed at socio-emotional skills development can enhance participation in the modern workforce, especially for marginalized groups like women.
- **Gendered Barriers:** Policymakers should address gendered barriers in non-farm employment through methodologies that challenge discriminatory norms, enabling women to make informed economic decisions.

#### Indian Government's Response through NITI Aayog's Position:

India is implementing measures to tackle climate change effectively such as:

- **National Innovations on Climate Resilient Agriculture (NICRA):** A pioneering project to help farmers adapt to climate challenges.
- **Employment Guarantee Scheme (MGNREGA):** A social safety net for rural households.
- **Pandemic Response:** Distribution of free food grains to two-thirds of the population.

**Question:** "Climate change exacerbates structural inequalities." Discuss this statement in the context of rural poverty and gendered impacts in India.

Source: [The Hindu](#)



## Wildlife Board clears 5 key road stretches in Ladakh including one to Daulat Beg Oldie near LAC

### Why in News?

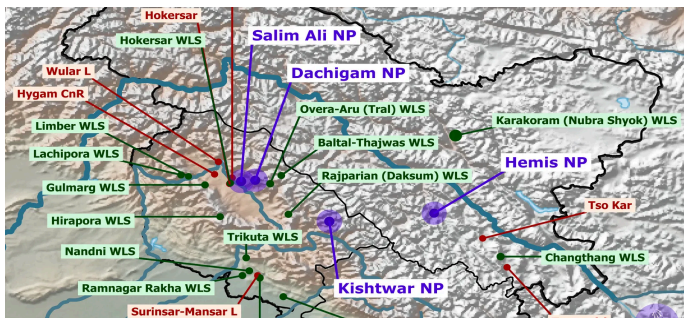
The Ministry has proposed to build culverts and bridges for the safe passage of wildlife crossing on these stretches, according to submissions made to the NBWL.

### Introduction

The National Board for Wildlife (NBWL) has approved five critical road projects in Ladakh, focusing on improving strategic infrastructure near the Line of Actual Control (LAC).

The roads, crucial for defense and civilian purposes, pass through ecologically sensitive areas, necessitating measures to protect local wildlife.

### Strategic Importance



#### 1. Defense Significance

- The roads provide alternative routes to the **Daulat Beg Oldie (DBO)** military outpost.
- The DS-DBO road passes along the LAC and is a critical link for troop deployment and patrolling in sensitive sectors.
- The DS-DBO to Saser-Brangsa-Gapshan link road are tactically significant for India's border management posture.

#### 2. Post-2020 Border Clashes

- Infrastructure development along the LAC has been accelerated after the Galwan valley clashes in 2020, where 20

### Editorial, Opinions & Ideas

Road Stretches Cleared	Location
Chushul-Lukung to Thakung post	Part of India-China Border (ICBR) Project-III
Durbuk-Shyok-Daulat Beg Oldie (DS-DBO) and Saser-Brangsa	Close to LAC and Chinese territory
DS-DBO to Track Junction	Parallel to LAC
DBO to Karakoram Pass	Northernmost military outposts
Leh-Chalunka Road	Over Ladakh range connecting Indus valley and Shyok valley

Indian soldiers lost their lives. These new roads help secure vital locations and improve India's operational readiness.

3. **Wildlife Safeguards** Pass through ecologically fragile areas like the Karakoram Wildlife Sanctuary, home to endangered species such as the Tibetan antelope, snow leopard, and bharal.
  - NBWL has mandated that culverts and bridges be constructed for safe wildlife crossings.

#### Wildlife Concerns

**Karakoram Wildlife Sanctuary** houses a variety of fauna, including:

- Tibetan antelope
- Snow leopard
- Bharal (Himalayan blue sheep)
- Ibex
- Woolly hare

**Question:** Examine the role of National Board for Wildlife (NBWL) in balancing ecological protection with strategic infrastructure development in border areas like Ladakh.

**Source:** [The Indian Express](https://www.thehindianexpress.com)



## Abject failure: On India's Global Hunger Index ranking

### Why in News?

India's ranks 105 out of 127 countries in the Global Hunger Index, 2024

#### Overview

The 2024 Global Hunger Index (GHI) reveals India's disconcerting ranking of 105 out of 127 countries, indicating serious levels of hunger.

This assessment places India in the company of nations facing significant challenges in food security and nutrition.

Indicator	Value
GHI Rank	105/127
GHI Score	27.3 (Serious)
Population Undernourished	~200 million (approx. 14% of India)
Infant Mortality Rate	26 per 1,000 live births (2022)
Global Average Infant Mortality	28 per 1,000 live births (2022)
Child Stunting Rate	35.5%
Child Wasting Rate	18.7%
GDP (FY24)	\$4 trillion
Per Capita Income (FY24)	\$2,485
Food Inflation (FY22 to FY24)	3.8% to 7.5%
Food Production (2023-24)	332 million tonnes

**Hunger Crisis:** The GHI indicates that if India's undernourished population were a standalone entity, it would rank as the seventh most populous country, reflecting a critical failure in addressing hunger and malnutrition.

**Economic Disparity:** Despite being the fastest-growing economy with a growth rate of 6.8% in FY24, India's per capita income remains significantly below the global average. This disparity contributes to varied access to food and nutrition, exacerbating the hunger crisis.

**Inflation Impact:** The sharp rise in food inflation from 3.8% to 7.5% over two years severely impacts low-income households, making it increasingly difficult for them to afford nutritious food.

**Agricultural Output:** Although India achieved record food production in 2023-24, reaching 332 million tonnes, challenges such as extreme weather events and low reservoir levels still hinder crop yields for certain produce, notably pulses and vegetables.

**Health Outcomes:** High rates of infant

mortality, stunting, and wasting highlight the deficiencies in India's healthcare system and social safety nets.

**Climate Change:** The looming threat of climate change casts doubt on India's future food security, underscoring the urgent need for effective policy interventions to safeguard nutrition for vulnerable populations.

#### Conclusion

The 2024 GHI underscores a systemic failure in addressing hunger and nutrition in India, necessitating urgent policy responses. Addressing economic disparities, improving healthcare, and enhancing agricultural resilience are critical to reversing these trends.

**Question:** Evaluate the impact of food inflation on the nutritional status of vulnerable populations in India.

**Source:** [The Hindu](#)



## Why climate change is a national security issue

### Why in News ?

Insurance reduces vulnerabilities to unpredictable events and climate disasters, while human security is vital for national security, especially in terrorism-prone regions with proxy wars.

### Overview

Climate change has emerged as a critical national security challenge, impacting human security, economic stability, and geopolitical dynamics. As disasters become more frequent and severe, the need for effective disaster risk management and insurance mechanisms becomes paramount to safeguard national aspirations and mitigate vulnerabilities.

### Human Security and National Security

- **Definition of Human Security:** Encompasses the protection of individuals from various threats, including environmental disasters.
- **Interconnection:** Human security is intrinsically linked to national security; without stable and secure communities, national security cannot be assured.

### Impact of Climate Disasters

- Disasters such as earthquakes, floods, and cyclones can drastically alter the socioeconomic landscape, rendering families homeless and destabilizing economies.
- **Example:** The 1991 super cyclone in Bangladesh resulted in the loss of 140,000 lives and displaced many more, affecting regional stability.

### Economic Implications

- Climate-induced disasters can lead to significant economic downturns, hindering national aspirations for growth (e.g., India's goal to become a \$5 trillion economy).
- **Disaster Risk Insurance:** A critical tool to mitigate economic impacts and ensure rapid recovery post-disasters.

### Disaster Risk Insurance Mechanisms

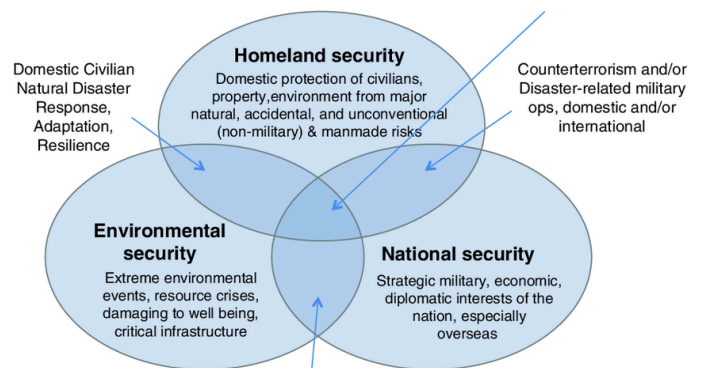
- **Parametric Insurance:** Offers rapid payouts based on pre-defined parameters (e.g., wind speed for hurricanes) rather than individual claims, expediting recovery.

- **Global Best Practices:** Many countries utilize disaster risk insurance to enhance resilience and recovery efforts, ensuring adherence to the principle of "build back better".

### Geopolitical Consequences

- Climate-related vulnerabilities can lead to increased migration and social unrest, impacting neighboring countries (e.g., influx of Afghan refugees into Pakistan).
- Historical context shows how displaced populations can become breeding grounds for radical ideologies (e.g., the rise of the Taliban).

Risk Mitigation of Political Violence (including Terrorism) Arising from Climate Change, Resource Shortages; Major Natural Disaster Response



### Conclusion

- Addressing climate change as a national security issue requires a comprehensive approach that integrates disaster risk management, insurance mechanisms, and a focus on human security.
- As the global climate continues to shift, prioritizing these elements is crucial for sustaining national stability and development.

**Question:** Evaluate the effectiveness of disaster risk insurance in mitigating the economic impacts of climate change-related disasters.

**Source :** [The Indian Express](https://www.indianexpress.com)



## Daily Quiz

**Q1. Consider the following statements regarding the National Food Security Act (NFSA):**

1. It provides subsidized food grains to nearly two-thirds of India's population.
2. The Act covers both rural and urban populations.

**Which of the above statements is/are correct?**

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

**Q2. Which of the following indicators are part of the Global Hunger Index?**

1. Prevalence of undernourishment
2. Child stunting
3. Adult obesity
4. Child wasting
5. Child mortality

**Select the correct answer using the code below:**

- A. 1, 2, 3, and 5
- B. 1, 2, 4, and 5
- C. 2, 3, 4, and 5
- D. 1, 3, 4, and 5

**Q3. Consider the following issues that need to be addressed in the regulation of Third-Party Litigation Funding (TPLF):**

1. Licensing of funders as financial service providers.
2. Establishing a dedicated oversight body.
3. Limiting funders' control over case strategies.
4. Mandating transparency in funding agreements.

**Which of the above issues are relevant for formulating a regulatory framework for TPLF in India?**

- A. 1, 2, and 3 only
- B. 1, 2, 3, and 4
- C. 2 and 3 only
- D. 1 and 4 only

**Q4. The study of neutrinos contributes to our understanding of which of the following?**

1. Nuclear reactions in the Sun
2. Earth's mantle convection
3. Electromagnetic forces
4. Subatomic particle mass hierarchy

**How many of the following are correct?**

- A. Only one
- B. Only two
- C. Only three
- D. All are Correct

**Q5. Consider the following statements regarding the Karakoram Wildlife Sanctuary:**

1. It is located in Ladakh.
2. It is home to endangered species like the snow leopard and Tibetan antelope.
3. The sanctuary is part of the Sahyadri

**Which of the statements given above is/are correct?**

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2, and 3

**Q6. Consider the following statements regarding Minimum Support Prices (MSP):**

1. MSP is announced for 23 crops before the sowing season.
2. The primary objective of MSP is to ensure remunerative prices to farmers and protect them from market price fluctuations.
3. MSP has been equally beneficial to all states in India, particularly in increasing the production of pulses.

**Which of the statements given above is/are correct?**

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1, 2, and 3
- D. 1 and 3 only



**Q7. What are the potential long-term implications of climate change on food security in India, as indicated in various reports?**

1. Increase in crop yields for drought-resistant varieties.
2. Significant reductions in food grain production.
3. Higher food prices due to supply constraints.
4. Improved nutritional quality of food crops.

**Select the correct answer using the code given below:**

- A. 1 and 3 only
- B. 2 and 4 only
- C. 2 and 3 only
- D. 1, 2, and 4 only

**Q8. Consider the following statements which is true regarding the Global Hunger Index (GHI) 2024**

1. India ranked 105 out of 127 countries.
2. India's undernourished population is less than 100 million.
3. The GHI measures food production only.
4. India has the highest GHI score in the world.

**How many of the above statements are correct?**

- A. Only one
- B. Only two
- C. Only three

D. All are Correct

**Q9. In the context of the Assam Accord, which of the following measures can be seen as a part of its implementation strategy?**

1. Establishment of the National Register of Citizens (NRC).
2. Provision of financial assistance for development projects in Assam.
3. Strengthening of border security to prevent illegal immigration.

**Select the correct answer using the codes given below:**

- A. 1 only
- B. 1 and 2 only
- C. 2 and 3 only
- D. 1, 2 and 3

**Q10. Consider the following statements about microRNA (miRNA):**

1. miRNA is composed of about 22 bases.
2. miRNA regulates gene expression by promoting protein synthesis.
3. miRNA is involved in regulating approximately 60% of human genes.

**Which of the statements given above is/are correct?**

- A. 1 only
- B. 1 and 2 only
- C. 1 and 3 only
- D. 1, 2, and 3



## Solutions

### 1. Option C is Correct

#### Explanation:

**Statement 1 :** The National Food Security Act (NFSA) was enacted in 2013, and it aims to provide food security by offering highly subsidized food grains to approximately two-thirds of India's population, which amounts to about 67% of the total population. **Hence Statement 1 is Correct.**

**Statement 2 :** The NFSA covers both rural and urban populations. Under the Act, 75% of the rural population and 50% of the urban population are entitled to receive subsidized food grains under the Public Distribution System (PDS). Hence Statement 1 is Correct.

### 2. Option B is Correct

#### Explanation:

**Prevalence of undernourishment: Correct :** This is a key component of the GHI. It measures the proportion of the population with insufficient caloric intake.

**Child stunting: Correct :** This refers to children who are too short for their age due to chronic malnutrition. It is one of the child-related indicators in the GHI.

**Adult obesity: Incorrect :** This is not part of the GHI. The GHI focuses on hunger and undernutrition, whereas obesity is a sign of overnutrition.

**Child wasting: Correct :** This indicates children who are underweight for their height, signifying acute malnutrition. It is included in the GHI.

**Child mortality: Correct :** This measures the mortality rate of children under the age of five, which reflects both the direct and indirect effects of hunger.

### 3. Option B is Correct

#### Explanation:

**Issue 1 : Correct :** Licensing TPLF funders would help in ensuring that only credible and financially sound entities can provide litigation funding, thereby protecting litigants from predatory or unscrupulous practices.

**Issue 2 : Correct :** A dedicated regulatory or oversight body would be necessary to monitor and ensure compliance with the rules governing TPLF, safeguarding both the litigants' interests and the integrity of the legal process.

**Issue 3 : Correct :** It is important to prevent funders from having excessive control over the litigation strategies, as this could undermine the autonomy of the litigants and the fairness of the legal process.

**Issue 4 : Correct :** Transparency in TPLF agreements is crucial for all parties (the court, litigants, and opposing parties) to understand the terms of the funding, such as the amount, conditions, and funders' potential share in the settlement.

### 4. Option C is Correct

#### Explanation:

1. Neutrinos are produced during nuclear fusion in the Sun, helping scientists understand these reactions. **Hence Correct**

2. Geoneutrinos, emitted by radioactive decay in the Earth's mantle, provide information about heat generation and mantle dynamics. **Hence correct**

3. Neutrinos do not interact via electromagnetic forces, so their study does not contribute to this area. **So it is incorrect**

4. Neutrinos have small masses, and their study helps in understanding the hierarchy of subatomic particle masses. **Hence it is correct**

### 5. Option B is Correct

#### Explanation:

**Statement 1 :** The Karakoram Wildlife Sanctuary is indeed located in the Ladakh region of India, specifically in the eastern part, near the border with Pakistan and China.

**Hence Statement 1 is Correct.**

**Statement 2 :** The sanctuary is known for its rich biodiversity and is home to several endangered species, including the snow leopard and the Tibetan antelope (also known as the chiru). **Hence Statement 2 is Correct.**

**Statement 3 :** The Sahyadri range is located in the Western Ghats of India, which is far from the Karakoram range. The Karakoram Wildlife Sanctuary is part of the Karakoram mountain range, not the Sahyadri. **Hence Statement 3 is Incorrect.**



#### 6. Option A is Correct

##### Explanation:

**Statement 1: Correct.** MSP is indeed announced for 23 crops prior to the sowing season, encompassing both kharif and rabi crops as well as commercial crops.

**Statement 2: Correct.** The primary objectives of MSP include ensuring remunerative prices to farmers and protecting them from market price fluctuations, thus encouraging agricultural production and contributing to food security.

**Statement 3: Incorrect.** While MSP aims to support farmers, its benefits are not equally distributed among all states. States like Punjab and Haryana benefit significantly more, particularly for staple crops like wheat and rice. Additionally, MSP has had limited impact on pulses due to lower procurement levels compared to staple crops.

#### 7. Option C is Correct

##### Explanation:

**Statement 1: Incorrect.** While drought-resistant varieties may perform better under stress, overall crop yields are expected to decline due to climate change.

**Statement 2: Correct.** Reports indicate that climate change could significantly reduce food grain production in India, jeopardizing food security.

**Statement 3: Correct.** Reduced supply of food grains can lead to higher prices, affecting food accessibility for the poor.

**Statement 4: Incorrect.** Climate change may negatively impact the nutritional quality of food crops due to stress factors affecting their growth.

#### 8. Option A is Correct

##### Explanation:

**Statement 1: Correct.** In the GHI 2024 report, India was indeed ranked 105 out of 127 countries.

**Statement 2: Incorrect.** As per recent estimates, India's undernourished population is significantly higher than 100 million, with estimates suggesting around 200 million or more.

**Statement 3: Incorrect.** The GHI does not measure food production alone; it includes several indicators such as undernourishment, child wasting, child stunting, and child mortality rates. It is a composite index aimed at assessing hunger at global, regional, and national levels.

**Statement 4: Incorrect.** While India has a concerning GHI score, it does not have the highest score globally. There are countries with higher hunger levels and lower rankings.

#### 9. Option D is Correct

##### Explanation:

- All three measures are part of the broader implementation strategy associated with the Assam Accord.
- The establishment of the NRC was directly linked to the identification of illegal immigrants, while financial assistance for development projects and strengthened border security were aimed at addressing socio-economic issues.

#### 10. Option C is Correct

##### Explanation:

**Statement 1: True:** miRNAs are short, single-stranded RNA molecules that typically consist of about 21-23 nucleotides (bases) in length. This length allows them to perform their regulatory functions effectively.

**Statement 2 : False:** miRNA primarily regulates gene expression negatively, not by promoting protein synthesis. Instead, they usually inhibit translation (protein synthesis) or lead to the degradation of target mRNA, thereby downregulating gene expression.

**Statement 3 : True:** Research indicates that miRNAs are involved in the regulation of a significant portion of human genes, estimated to be around 60%. They play crucial roles in various biological processes, including development, differentiation, cell proliferation, and apoptosis.







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